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December 1, 2005

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: Henry Randall  
Cecelia Newman  
Decisions & Certificates  
of Correction Branch

Certificate  
DEC 07 2005  
of Correction

Re: Applicant: Jack L. Hoffa  
Serial No: 10/044,657  
Filed: Jan. 8, 2005  
For: APPARATUS FOR PROCESSING WIRE  
Patent No: 6,854,177 B2  
Issued: Feb. 15, 2005  
Atty. Dkt. 12,335

Sir:

This is a renewed request, based on the request filed October 11, 2005. That Oct. 11 filed request was denied.

It is re-asserted that there is an error in Column 4, lines 39-42, and that this error should be corrected by changing those lines to read: "DETAILED DESCRIPTION". The following items with attached ANALYSIS support this conclusion:

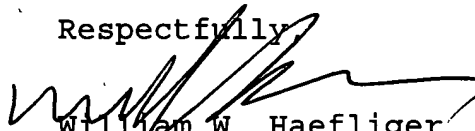
Based on the legal precedents in the ANALYSIS, it is believed and urged that the requested Certificate of Correction should justifiably be granted and issued.

DEC 12 2005

Henry Randall  
Cecilia Newman  
December 1, 2005  
page 2

Kindly charge any fee to our Account No.08-0118.

Respectfully,



William W. Haefliger  
Registration No.17,120

WWH:hk  
Enclosure

DEC 12 2005

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 5,937,511  
DATED : August 17, 1999  
INVENTOR(S) : Jack L. Hoff and Greg Nazerian

Page 2 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 4,

Lines 26-30, "DETAILED DESCRIPTION OF BACKGROUND APPARATUS AND METHOD DISCLOSED IN SER. NOS. 08/022,981 AND 08/148,568" should read

-- DETAILED DESCRIPTION --



Signed and Sealed this

Fifth Day of October, 2004

A black and white photograph of a handwritten signature, "Jon W. Dudas", in cursive script on a textured background.

JON W. DUDAS

*Director of the United States Patent and Trademark Office*

DEC 12 2005

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,272,740 B1  
DATED : August 14, 2001  
INVENTOR(S) : Jack L. Hoffa and Greg Nazerian

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

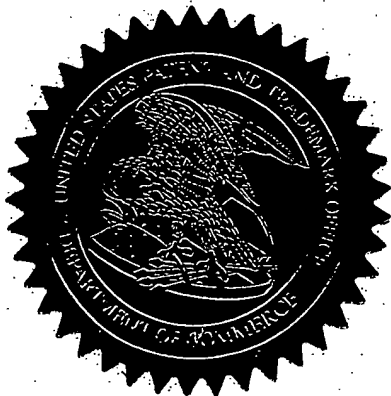
Column 4,  
Lines 39-44,

“DETAILED DESCRIPTION OF  
BACKGROUND APPARATUS AND METHOD  
DISCLOSED IN SER. NO. 08/022,981 AND SER.  
NO. 08/148,568”

should read:            -- DETAILED DESCRIPTION --

Signed and Sealed this

Twenty-eighth Day of September, 2004



JON W. DUDAS  
*Director of the United States Patent and Trademark Office*

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,336,267 B1  
DATED : January 8, 2002  
INVENTOR(S) : Jack L. Hoffa

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 4,  
Lines 42-47:

“DETAILED DESCRIPTION

OF BACKGROUND APPARATUS AND  
METHOD DISCLOSED IN

Ser. NO. 08/022,981 AND Ser. NO. 08/148,568”

should read

-- DETAILED DESCRIPTION --



Signed and Sealed this

Fifth Day of October, 2004

A handwritten signature in black ink that reads "Jon W. Dudas". The signature is stylized with a large, looping initial "J" and a distinct "D".

ION W. DUDAS

*Director of the United States Patent and Trademark Office*



# ANALYSIS

1. On Dec. 2, 1994, we filed U.S. Patent Application Serial Number 08/353,352. Page 10, lines 12-17 of the specification of this application reads:

“DETAILED DESCRIPTION OF  
BACKGROUND APPARATUS AND METHOD  
DISCLOSED IN  
SERIAL NO. 08/022,981  
AND  
SERIAL NO. 08/148,568”

2. On November 16, 1995, we filed an amendment to Serial No. 08/353,352. Page 1 of this amendment reads:

“In the Specification:

page 10, line 12-17, delete “OF BACKGROUND  
APPARATUS AND METHOD DISCLOSED IN SERIAL NO. 08/022,981  
AND SERIAL NO. 08/148,568”

3. On September 9, 1997, Serial No. 08/353,352 issued as U.S. Patent No. 5,664,324. This patent reflects our Nov. 16, 1995 amendment that changed page 10, lines 12-17 in the specification of the application. In Column 4 of Pat. No. 5,664,324, the words

“DETAILED DESCRIPTION OF BACKGROUND  
APPARATUS AND METHOD DISCLOSED IN  
SERIAL NO. 08/022,981 AND SERIAL NO. 08/148,568”

have been changed to “DETAILED DESCRIPTION”.

4. Serial No. 08/845,065, now Pat. No. 5,937,511, is a continuation of Serial No. 08/353,352, now Pat. No. 5,664,324. However, Pat No. 5,937,511 issued without the correction to Column 4 that is reflected in Pat. No. 5,664,324. On October 5, 2004, the PTO corrected this error in Column 4 of Pat. No. 5,937,511 by issuing a Certificate of Correction that changed "DETAILED DESCRIPTION OF BACKGROUND APPARATUS AND METHOD DISCLOSED IN SERIAL NO. 08/022,981 AND SERIAL NO. 08/148,568" to read "DETAILED DESCRIPTION".

5. Serial No. 09/320,096, now Pat. No. 6,272,740, is a continuation of Serial No. 08/845,065, now Pat. No. 5,937,511, which is a continuation of Serial No. 08/353,352, now Pat. No. 5,664,324. However, Pat. No. 6,272,740 issued without the correction to Column 4 that is reflected in Pat. No. 5,664,324. On September 28, 2004, the PTO corrected this error in Column 4 of Pat. No. 6,272,740 by issuing a Certificate of Correction that changed "DETAILED DESCRIPTION OF BACKGROUND APPARATUS AND METHOD DISCLOSED IN SERIAL NO. 08/022,981 AND SERIAL NO. 08/148,568" to read "DETAILED DESCRIPTION".

6. Serial No. 09/494,461, now Pat. No. 6,336,267, is a division of Serial No. 09/320,096, now Pat. No. 6,272,740, which is a continuation of Serial No. 08/845,065, now Pat. No. 5,937,511, which is a continuation of Serial No. 08/353,352, now Pat. No. 5,664,324. However, Pat. No. 6,336,267 issued without the correction to Column 4 that is reflected in Pat. No. 5,664,324. On October 5, 2004, the PTO corrected this error in Column 4 of Pat. No. 6,336,267 by issuing a Certificate of Correction that changed "DETAILED DESCRIPTION OF BACKGROUND APPARATUS AND METHOD DISCLOSED IN SERIAL NO. 08/022,981 AND SERIAL NO. 08/148,568" to read "DETAILED DESCRIPTION".

7. Serial No. 10/044,657, now Pat. No 6,854,177, is a continuation of Serial No. 09/494,461, now Pat. No. 6,336,267, which is a division of Serial No. 09/320,096, now Pat. No. 6,272,740, which is a continuation of Serial No. 08/845,065, now Pat. No. 5,937,511, which is a continuation of Serial No. 08/353,352, now Pat. No. 5,664,324. The specification in Pat. No. 6,854,177 should be the same as the specifications of its four parent/sibling patents. An error appears in Pat. No. 6,854,177 in Column 4, lines 39-42, which reads:

"DETAILED DESCRIPTION OF BACKGROUND  
APPARATUS AND METHOD DISCLOSED IN  
U.S. Ser. No. 08/022,981 AND Ser. No. 08/148,568"

This error in Pat. No. 6,854,177 should be corrected to read "DETAILED DESCRIPTION".

Enclosed are copies of each of the following:

- Page 1 of U.S. Patent No. 6,854,177.
- Pages 1, 2, and 10 of U.S. Patent Application Serial No 08/353,352.
- Page 1 of the November 16, 1995, Amendment to Serial No 08/353,352.
- The title page and Columns 3 and 4 of U.S. Patent No. 5,664,324.
- Page 2 of the Certificate of Correction for Col. 4 in Pat. No. 5,937,511 issued Oct. 5, 2004.
- The Certificate of Correction for Col. 4 in Pat. No. 6,272,740 issued Sept. 28, 2004.
- The Certificate of Correction for Col. 4 in Pat. No. 6,336,267 issued Oct. 5, 2004.





US006854177B2

(12) **United States Patent**  
**Hoffa**

(10) Patent No.: **US 6,854,177 B2**  
(45) Date of Patent: **Feb. 15, 2005**

(54) **APPARATUS FOR PROCESSING WIRE**

(75) Inventor: **Jack L. Hoffa, Brea, CA (US)**

(73) Assignee: **Eubanks Engineering Co., Monrovia, CA (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 11 days.

(21) Appl. No.: **10/044,657**

(22) Filed: **Jan. 8, 2002**

(65) **Prior Publication Data**

US 2002/0059720 A1 May 23, 2002

**Related U.S. Application Data**

(63) Continuation of application No. 09/494,461, filed on Jan. 31, 2000, now Pat. No. 6,336,267, which is a division of application No. 09/320,096, filed on May 26, 1999, now Pat. No. 6,272,740, which is a continuation of application No. 08/845,065, filed on Apr. 21, 1997, now Pat. No. 5,937,511, which is a continuation of application No. 08/353,352, filed on Dec. 2, 1994, now Pat. No. 5,664,324, which is a continuation-in-part of application No. 08/022,981, filed on Feb. 25, 1993, now Pat. No. 5,375,485, which is a continuation-in-part of application No. 07/857,972, filed on Mar. 26, 1992, now Pat. No. 5,293,683, which is a division of application No. 07/765,986, filed on Sep. 29, 1991, now Pat. No. 5,253,555, which is a continuation-in-part of application No. 07/659,557, filed on Feb. 22, 1991, now abandoned, which is a continuation-in-part of application No. 07/611,057, filed on Nov. 9, 1990, now Pat. No. 5,146,673, and a continuation-in-part of application No. 08/148,568, filed on Nov. 8, 1993, now Pat. No. 5,469,763, which is a continuation-in-part of application No. 08/022,981, filed on Feb. 25, 1993, now Pat. No. 5,375,485, which is a continuation-in-part of application No. 07/857,972, filed on Mar. 26, 1992, now Pat. No. 5,293,683, which is a division of application No. 07/765,986, filed on Sep. 26, 1991, now Pat. No. 5,253,555, which is a continuation-in-part of application No. 07/659,557, filed on Feb. 22, 1991, now abandoned, which is a continuation-in-part of application No. 07/611,057, filed on Nov. 9, 1990, now Pat. No. 5,146,673.

(51) Int. Cl.<sup>7</sup> ..... **B23P 19/00**

(52) U.S. Cl. .... **29/745; 748/755; 748/728; 748/825; 748/33 M; 81/9.51**

(58) Field of Search ..... 29/745, 33 M, 29/728, 748, 564.4, 828, 747; 81/9.51, 9.44, 9.42; 198/345.1, 626; 83/71, 151, 373

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

1,433,320 A	10/1922	Wersel
1,477,678 A	12/1923	Wetmore
2,523,936 A	9/1950	Axelsen
2,645,959 A	7/1953	Fuchs et al.
2,671,363 A	3/1954	Wells

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

DE 1084799 7/1960

(List continued on next page.)

**OTHER PUBLICATIONS**

Standard Logic Catalogue, "DWS-6K Electronic Wire Stripper", Feb. 1974.

(List continued on next page.)

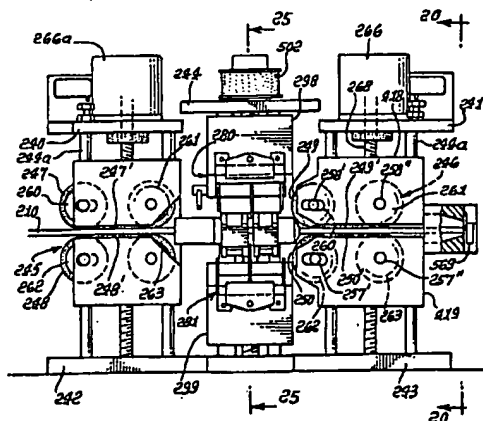
Primary Examiner—Minh Trinh

(74) Attorney, Agent, or Firm—William W. Haefliger

(57) **ABSTRACT**

An apparatus for processing wire to cut the wire into sections and to expose section wire ends, the wire having an inner core and sheathing about the core, the apparatus including structure for displacing the wire axially endwise comprising multiple blade structures, including at least two of the structures that move adjacent one another as the two structure move relatively oppositely toward and away from the axis in directions generally normal to the axis; each of the two structures having first and second cutting edges; the cutting edges configured such that, when the two the structures are moved relatively longitudinally in a primary mode, two of the cutting edges cut through the wire, and when the two structures are moved relatively longitudinally in a second mode, the remaining two of the cutting edges cut into the wire sheathing to enable stripping of the sheathing of the wire.

**11 Claims, 41 Drawing Sheets**



TO WHOM IT MAY CONCERN:

BE IT KNOWN THAT WE, JACK L. HOFFA and GREG  
NAZERIAN, citizens of the United States of America,  
residing in Brea and Pasadena, in the counties of Orange  
5 and Los Angeles, respectively, both in the State of  
California, have invented a new and useful improvement in

**WIRE AND CABLE CUTTING AND STRIPPING  
USING ADJACENT BLADES**

08/353,352

## BACKGROUND OF THE INVENTION

5 This application is a continuation-in-part of  
Serial No. 08/022,981 filed February 25, 1993; which is  
a continuation-in-part of Serial No. 07/857,972 filed  
15 March 26, 1992, now U.S. Patent 5,293,633 issued March  
15, 1994; which is a continuation-in-part of Serial No.  
07/659,557 filed February 22, 1991, now U.S. Patent  
5,297,457 issued March 29, 1994; which is a continuation-  
in-part of Serial No. 07/611,057 filed November 9, 1990,  
10 now U.S. Patent 5,146,673 issued September 15, 1992; and  
a continuation-in-part of Serial No. 08/148,568 filed  
November 8, 1993; which is a continuation-in-part of  
Serial No. 08/022,981 filed February 25, 1993; which is  
a continuation-in-part of Serial No. 07/857,972 filed  
15 March 26, 1992, now U.S. Patent 5,293,683 issued March  
15, 1994; which is a continuation-in-part of Serial No.  
07/659,557 filed February 22, 1991, now U.S. Patent  
5,297,457 issued March 29, 1994; which is a continuation-  
in-part of Serial No. 07/611,057 filed November 9, 1990,  
20 now U.S. Patent 5,146,673 issued September 15, 1992.

25 This invention relates generally to wire or  
cable severing, as well as stripping sheathing from  
severed wire sections; and more particularly, it concerns  
unusual advantages, method and apparatus to effect  
severing of a wire or cable into two sections, and  
stripping of sheathing off ends of both sections, with  
minimal motions of severing and stripping elements and in  
minimum time.

There is continual need for equipment capable

cutting edges spaced from the wire, as in Fig. 54(b));

Fig. 58 is a section taken on lines 58-58 of Fig. 57;

Fig. 59 is like Fig. 57 but showing the blade structure in position to cut into wire or cable insulation, for stripping;

Fig. 60 is a section taken on lines 60-60 of Fig. 59;

Fig. 61 shows a blade load apparatus; and

Fig. 62 shows blades with variable cutting edges.

**DETAILED DESCRIPTION OF  
BACKGROUND APPARATUS AND METHOD**

**DISCLOSED IN**

**SERIAL NO. 08/022,981**

**AND**

**SERIAL NO. 08/148,568**

Referring first to Figs. 1a--1f, they show in diagrammatic form the positions of both wire severing and sheathing stripping blades, during various steps in a wire processing procedure or method. In this regard, the "wire" 10 (meant to also refer to cable) has a metal core 11a and a tubular sheathing 11b about the core. The wire is shown extending axially longitudinally in Figs. 1a--1f, the axis being located at 12.

First cutter means is provided to include, or may be considered to include, multiple blades. See for example the two wire-cutting blades 13a and 13b of a

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Art Unit 3206

Examiner: C. Arbes

Applicant:

Jack L. Hoffa

Serial No.:

08/353,352

Filed:

December 2, 1994

For:

WIRE AND CABLE CUTTING  
AND STRIPPING USING  
ADJACENT BLADES

-----  
Pasadena, California  
November 16, 1995

A M E N D M E N T

The Commissioner of Patents and Trademarks

Washington, D.C. 20231

Sir:

In response to the office Action dated 8-24-95,  
kindly enter the following:

In the Specification:

page 10, line 12-17, delete "OF BACKGROUND  
APPARATUS AND METHOD DISCLOSED IN SERIAL NO. 08/022,981  
AND SERIAL NO. 08/148,568"

page 14, lines 14-16, please delete ", which  
may be considered as included within the wire drives 30  
and 31, as mentioned."

page 16, line 30, change "51a" to --52a--

page 18, line 4, change "83" to --92--

page 22, line 25, delete "wire 11", and in line



US005664324A

# United States Patent [19]

Hoffa et al.

[11] Patent Number: 5,664,324

[45] Date of Patent: \*Sep. 9, 1997

## [54] WIRE AND CABLE CUTTING AND STRIPPING USING ADJACENT BLADES

2,811,063 10/1957 Eubanks .  
 2,880,635 4/1959 Harris .  
 2,934,982 5/1960 Eubanks .

[75] Inventors: Jack L. Hoffa, Brea; Greg Nazerian, Pasadena, both of Calif.

(List continued on next page.)

[73] Assignee: Eubanks Engineering Company, Monrovia, Calif.

## FOREIGN PATENT DOCUMENTS

[\*] Notice: The term of this patent shall not extend beyond the expiration date of Pat. No. 5,146,673.

2513478 3/1983 France .  
 2525402 10/1983 France .  
 2525403 10/1983 France .  
 1084799 7/1960 Germany .  
 2927235 8/1980 Germany .  
 3926782 12/1990 Germany .  
 54-118584 9/1979 Japan .  
 1216815 3/1986 U.S.S.R .  
 1293779 2/1987 U.S.S.R .  
 609834 10/1948 United Kingdom .

[21] Appl. No.: 353,352

[22] Filed: Dec. 2, 1994

## Related U.S. Application Data

## OTHER PUBLICATIONS

[63] Continuation-in-part of Ser. No. 22,981, Feb. 25, 1993, Pat. No. 5,375,485, which is a continuation-in-part of Ser. No. 857,972, Mar. 26, 1992, Pat. No. 5,293,683, which is a continuation-in-part of Ser. No. 659,557, Feb. 22, 1991, abandoned, which is a continuation-in-part of Ser. No. 611,057, Nov. 9, 1990, Pat. No. 5,146,673, and Ser. No. 148,568, Nov. 8, 1993, Pat. No. 5,469,763, which is a continuation-in-part of Ser. No. 22,981, Feb. 25, 1993, Pat. No. 5,375,485, which is a continuation-in-part of Ser. No. 857,972, Mar. 26, 1992, Pat. No. 5,293,683, which is a continuation-in-part of Ser. No. 659,557, Feb. 22, 1991, abandoned, which is a continuation-in-part of Ser. No. 611,057, Nov. 9, 1990, Pat. No. 5,146,673.

Standard Logic Catalogue, "EWS-6K Electronic Wire Stripper", Feb. 1974.

Artos Catalog Sheet, "Single Blade, Fully Automatic Wire Processing", 1989.

Komax 33 Catalogue Sheet, 1988.

Primary Examiner—Carl J. Arbes

Attorney, Agent, or Firm—William W. Haeffliger

[51] Int. Cl.<sup>6</sup> ..... H01R 43/00; B23P 23/00

[52] U.S. Cl. .... 29/825; 29/564.4; 29/33 M; 81/9.51

[58] Field of Search ..... 29/825, 33 M; 81/9.51

## [56] References Cited

## U.S. PATENT DOCUMENTS

1,433,320 10/1922 Wersel .  
 1,477,678 12/1923 Wetmore .  
 2,523,936 9/1950 Axelsen .  
 2,645,959 7/1953 Fuchs et al. .  
 2,671,363 3/1954 Wells .  
 2,722,145 11/1955 Schulenburg .  
 2,765,685 10/1956 Stratman et al. .

## [57] ABSTRACT

An apparatus for processing wire to cut the wire into sections and to expose section wire ends, the wire having an inner core and sheathing about the core, the apparatus including structure for displacing the wire axially endwise comprising multiple blade structures, including at least two of the structures that move adjacent one another as the two structure move relatively oppositely toward and away from the axis in directions generally normal to the axis; each of the two structures having first and second cutting edges; the cutting edges configured such that, when the two the structures are moved relatively longitudinally in a primary mode, two of the cutting edges cut through the wire, and when the two structures are moved relatively longitudinally in a second mode, the remaining two of the cutting edges cut into the wire sheathing to enable stripping of the sheathing of the wire.

20 Claims, 33 Drawing Sheets

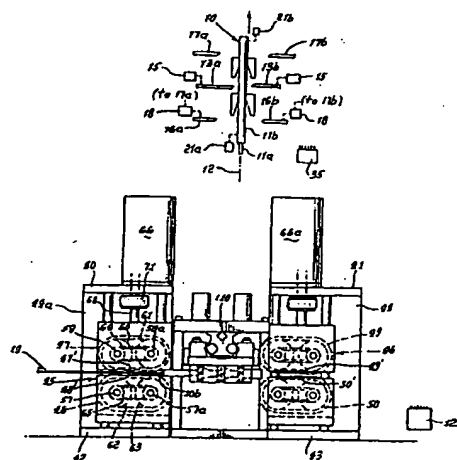


FIG. 15 is a plan view on lines 15—15 of FIG. 14;  
FIG. 16 is an end elevation taken on lines 16—16 of FIG. 15;

FIG. 17 is a schematic showing of slug pusher operation;  
FIGS. 18a—18f are perspective views showing steps in the method of wire processing;

FIG. 19 is a side elevational view like that of FIG. 2 showing wire conveying and processing apparatus;

FIG. 20 is an end view taken on lines 20—20 of FIG. 19;

FIG. 21 is a section taken in elevation on lines 21—21 of FIG. 20;

FIG. 22 is a section taken in elevation on lines 22—22 of FIG. 20;

FIG. 23 is a section taken on lines 23—23 of FIG. 21;

FIG. 24 is a section taken on lines 24—24 of FIG. 21;

FIG. 25 is a vertical section taken on lines 25—25 of FIG. 19;

FIG. 26 is a plan view, partly in section, taken on lines 26—26 of FIG. 25;

FIG. 27 is an elevation taken on lines 27—27 of FIG. 26;

FIG. 28 is an enlarged plan view, like that of FIG. 26, showing wire slug trap door and pusher elements in outwardly pivoted states;

FIG. 29 is an elevation taken on lines 29—29 of FIG. 28;

FIG. 30 is an enlarged frontal elevation taken on lines 30—30 of FIG. 25;

FIG. 31 is an enlarged vertical section taken on lines 31—31 of FIG. 30 showing blade retention means;

FIG. 32 is a further enlarged section showing a portion of FIG. 31, with a blade retention means in released position;

FIG. 33 is a horizontal plan view taken in section on lines 33—33 of FIG. 30;

FIG. 34 is a horizontal plan view taken in section on lines 34—34 of FIG. 30;

FIGS. 35a—35c are enlarged views showing actuation of wire slug trap door and pusher elements;

FIG. 36 is a section taken on lines 36—36 of FIG. 35a;

FIG. 37 is a perspective view of a wire guide element;

FIG. 38 is a perspective view of a wire slug trap door element;

FIG. 39 is a perspective view of a wire slug pusher door element;

FIG. 40 is a side elevational view of a wire advancement detection means;

FIG. 41 is an end view taken on lines 41—41 of FIG. 40;

FIG. 42 is a circuit diagram;

FIG. 43 is a view like FIG. 18(a) but showing a modification;

FIG. 44 is an elevation showing a wire sheathing slug removed from an exposed wire core end;

FIG. 45 is an elevation showing two blade structures that are movable in opposite directions to cut into a wire;

FIG. 46 is a view like FIG. 45 showing the two structures closed together in interfitting relation during wire cutting;

FIG. 46a is an enlarged view showing C-shaped cutting edges cutting sheathing;

FIG. 46b is a section taken on lines 46b—46b of FIG. 46a;

FIG. 47 is an edge view of the overlapping blades of the two blade structures seen in FIG. 46;

FIG. 48 is a section taken on lines 48—48 of FIG. 45;

FIG. 49 is an exploded edge view showing a blade and its holder and rivets for interconnecting same;

FIG. 50 is a view like FIG. 45 showing a modification;

FIG. 51 is a view like FIG. 46 but depicting the modified blade structures of FIG. 50 in closed together condition;

FIG. 52 is an elevation showing a further modified blade structure;

FIG. 53 is an edge view section taken on lines 53—53 of FIG. 52;

FIGS. 54a—54c are diagrammatic views showing steps in the improved method of wire or cable processing, in accordance with the present invention;

FIG. 55 is a view like FIG. 25 showing wire conveying and processing apparatus as adapted to the improved blade structures of the present invention;

FIG. 56 is an elevation taken on lines 56—56 of FIG. 55, and corresponds generally to FIG. 30;

FIG. 57 is an elevation showing two overlapping and oppositely movable blade structures, in accordance with the present invention, and in open position (blade cutting edges spaced from the wire, as in FIG. 54(b));

FIG. 58 is a section taken on lines 58—58 of FIG. 57;

FIG. 59 is like FIG. 57 but showing the blade structure in position to cut into wire or cable insulation, for stripping;

FIG. 60 is a section taken on lines 60—60 of FIG. 59;

FIG. 61 shows a blade load apparatus; and

FIG. 62 shows blades with variable cutting edges.

#### DETAILED DESCRIPTION

Referring first to FIGS. 1a—1f, they show in diagrammatic form the positions of both wire severing and sheathing stripping blades, during various steps in a wire processing procedure or method. In this regard, the "wire" 10 (meant to also refer to cable) has a metal core 11a and a tubular sheathing 11b about the core. The wire is shown extending axially longitudinally in FIGS. 1a—1f, the axis being located at 12.

First cutter means is provided to include, or may be considered to include, multiple blades. See for example the two wire-cutting blades 13a and 13b of a first set, located or carried for movement laterally toward and away from the wire axis 12. A first drive for controllably simultaneously enabling or advancing the blades toward one another, laterally oppositely (see arrows 14a and 14b in FIG. 1b), is shown at 15. That drive is also operable to retract the blades 13a and 13b away from one another.

Second and third cutter means are also provided, for sheathing stripping, and each may be considered to include multiple blades located for movement toward and away from the axis 12. See for example the second set of two blades 16a and 16b, and the third set of two blades 17a and 17b.

Blades 16a and 16b are located, or considered to be, controllably simultaneously displaced, as by drive 18, (or by separate or multiple drives) laterally oppositely, toward one another (see arrows 19a and 19b in FIG. 1d), the drive also operable to retract the blades 16a and 16b away from one another. Similarly, the blades 17a and 17b are located, or carried to be, controllably displaced simultaneously laterally oppositely toward one another (see arrows 20a and 20b in FIG. 1d), and drive 18 may be used for this purpose. Thus, blades 16a and 16b may be displaced toward one another at the same time and to the same extent as blades 17a and 17b are displaced toward another, as is clear from FIG. 1d. The